

**REMARKS/ARGUMENTS**

Reconsideration of the subject application is requested. Claims 1-41 have been canceled. New claims 42-103 are added and are pending.

The claims have been revised to define the invention with additional clarity. That the claims have been amended should not be taken as an indication that applicants agree with any view expressed by the Examiner. Rather, the revisions are made merely to advance prosecution and applicants reserve the right to pursue any deleted subject matter in a continuation application.

Attached to this amendment is a tabulation relating the new claims to the previous claims. In overview, claims 1 and 32 are combined to form new independent claim 42, 1 and 35 new claim 54, 25 and 32 new claim 69, 25 and 35 new claim 74, 28 and 32 new claim 82, 28 and 35 new claim 87, 31 and 32 new claim 95 and 31 plus 35 as new claim 98. Previous claims 11-24 and 41 are not included. Having explained and illustrated basis for the new claims in the original claim set, it will be apparent no new matter is presented.

The issues presented in the Official relate exclusively to rejections based on prior art; there is an anticipation rejection and two "obviousness" rejections.

Claims 1, 11, 20, 21, 25 and 31 are rejected under 35 USC §102(b) as allegedly being anticipated by Farrauto '360. As none of these claims appears as such in the new claim set, this rejection is moot. Nor is Farrauto pertinent to the new claims which specify "a ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate". None of the cited references, including Farrauto, describe or suggest "a ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate." Instead they disclose a ceramic carrier having a coating layer used to secure it to a ceramic substrate.

According to the comments and discussion in the Action, the Farrauto et al reference is argued to describe a coating to be the catalyst material itself at column 2, line 12 et seq. and at column 13, line 14 et seq. and at claim 17. It is also urged claim 13 of the reference teaches that the walls of the channels are in fact coated by the catalytic material.

The passages referred to do not support the examiner's position. Farrauto et al actually states that a first catalyst composition, a second catalyst composition and an intermediate catalyst composition may comprise palladium oxide dispersed on a first refractory metal oxide *support* (column 2, lines 12 to 14, 20 to 23 and 48 to 50). The catalyst component is palladium oxide which is used together with a refractory metal oxide – a support – which is not a catalyst component. Further, although it is true that Farrauto et al states that a third catalyst material is dispersed on channel walls (column 2, lines 59 et seq.), the third catalyst material is dispersed on a refractory metal oxide support, or is a reaction product of metal oxide catalyst and refractory metal oxide. Thus Farrauto et al includes a refractory metal oxide which in fact is a coating layer.

Regarding the intermediate catalyst composition of Farrauto's claim 13, the intermediate catalyst composition contains a coating layer as defined in claim 14. This rejection is both flawed and no longer pertinent and should be withdrawn.

Claims 1-41 are rejected under 35 USC 103§(a) as being unpatentable over Strehlau et al '904 or Ferrauto et al '360. To the extent either of these citations is considered pertinent to any of the new claims presented above, this rejection is traversed.

The Ferrauto et al reference is discussed above and these comments pertain to all of the claims now under consideration.

With regard to the Strehlau et al reference, a synopsis of the examiner's position is as follows: The teaching of the catalyst being on the carrier is found at Strehlau column 2, line 12 et seq. and column 13, line 14 et seq. and at claim 17. Thus the catalytic

components are directly on the carrier and not on a coating material between the carrier and the catalyst material.

Applicants disagree with the examiner's conclusions as they do not take into account other passages of this citation. As described in column 7, lines 14 to 34, the catalyst material contains catalytically active components, oxygen storing materials and promoters. The catalytically active components such as Pt, Pd, Rh, Ir are dispersed on support materials where a coating layer is formed. In other words, Strehlau's catalyst materials always include support materials as indicated at column 7, lines 14-16. Strehlau is equally irrelevant to applicants' claims as is the Farrauto et al reference. Withdrawal of this rejection is in order.

Claims 1-41 are also rejected under 35 USC 103§(a) as being unpatentable over Strehlau et al '904 or Farrauto et al '360... this time in combination with Patent Abstracts of Japan 6220441A to Yamada Shunichi et al.

To the extent that any of these citations or their combination is considered pertinent to any of the new claims presented above, this rejection is traversed. The Farrauto et al and Strehlau et al references are discussed above and these comments pertain to all of the claims now under consideration.

In applying the Yamada et al reference, it is argued Yamada teaches in detail the claimed parameters of defects, d and f orbit, microcracks and substituting of elements in the carrier or substrate". Applicants disagree.

In fact, Yamada does not describe or suggest any of these characteristics. Yamada reference relates to a method for preparing a cordierite honeycomb catalytic body in which a cordierite honeycomb structure is treated with an acid so as to increase its surface area and then heat-treated at 600 to 1000°C. A catalytic component is deposited after heat-treatment. Thus it will be apparent Yamada adds nothing to either of the Farrauto or Strehlau et al references. The rejection is incorrect and should be withdrawn.

Having fully responded to all of the pending rejections contained in the Official Action, applicants submit that the claims are in condition for allowance and earnestly solicit an early Notice to that effect. The examiner is invited to contact the undersigned if any further information is required.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



Arthur R. Crawford  
Reg. No. 25,327

ARC:eaw  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100

Old Claim Number	New Claim Number
1 and 32	<b>42</b>
2	43
3	44
4	45
5	46
6	47
7	48
8	49
9	50
10	51
33	52
34	53
1 and 35	<b>54</b>
2	55
3	56
4	57
5	58
6	59
7	60
8	61
9	62
10	63
36	64
37	65
38	66
39	67
40	68
25 and 32	<b>69</b>
26	70
27	71
33	72
34	73
25 and 35	<b>74</b>
26	75
27	76
36	77
37	78
38	79

39	80
40	81
28 and 32	<b>82</b>
29	83
30	84
33	85
34	86
28 and 35	<b>87</b>
29	88
30	89
36	90
37	91
38	92
39	93
40	94
31 and 32	<b>95</b>
33	96
34	97
31 and 35	<b>98</b>
36	99
37	100
38	101
39	102
40	103

Boldface indicates an independent claim.